

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A tire structure comprising:
 - a tire casing having a top and side walls terminating at a bead portion and defining a primary air chamber;
 - a tread bonded to the casing top and defining a road engaging tread surface, a channel formed in the tread surface and a secondary chamber formed under a tread portion at said channel, a first air passage through the casing and into the secondary chamber, a second air passage through the casing at a side wall position of the casing substantially adjacent the bead portion, and an air line bonded to the interior wall of the casing and extending from said first air passage to the second air passage; and
 - a valve unit in said second air passage controlling air into and air out of second air passage and accordingly through the air line and said first air passage to said second chamber.
2. (Original) A tire structure as defined in claim 1 wherein said valve unit includes multiple valve function including receiving air from the primary chamber for expanding the secondary chamber and releasing air from the secondary chamber to atmosphere, and further including remote control actuation.
3. (Original) A tire structure as defined in claim 2 wherein said valve unit includes an air pump and air pressure sensor/transmitter.
4. (Original) A system for tire stud extension and retraction which comprises:
 - forming a tire structure including a tire tread bonded to a tire casing having opposing bead portions for sealing the tire to a support rim, said tire tread provided with a circular channel formed in the tread;

placing a tread strip having studs in the circular channel,
forming a first air passage through the tire casing and into the circular channel under the tread strip;
forming a second air passage through a side wall of the tire casing substantially adjacent to a bead portion, and extending an air line between the air passages and providing the second air passage with a valve unit.
curing the tire structure resulting in a structure enabling the introduction and relief of air pressure through said valve unit and air line to said circular channel for extending and retracting the stud carrying tread strip.

5. (New) A wheel comprising;
a tire mounted on a wheel rim and said tire and wheel rim cooperatively forming a wall defining an enclosed primary chamber for containing air under pressure.
said tire including an expandable-retractable tread portion;
a secondary chamber under said expandable-retractable tread portion, and as expanded said tread portion projected into road engagement position, and as retracted said tread portion withdrawn into non road engagement position;
a valve within said primary chamber including a first stem portion in communication with ambient air, and further including a second stem portion in communication with the secondary air chamber, said valve being a three way valve including mechanism enabling selective connection as between a) ambient air outside the wheel and the secondary chamber, and b) air under pressure in the primary chamber and the secondary chamber.